

CLAIMS

1. (Currently Amended) A method of allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

(a) monitoring for a message of a connection between a user element and a network;

(b) determining whether the message is a call set-up message or an allocation message; and

(c) ~~(b)~~ allocating:

(c1) ~~(b1)~~ if the message is a call set-up message, one of the processors to the connection in accordance with a load-balancing algorithm, and

(c2) ~~(b2)~~ if the message is an allocation message, a set of spreading codes to the connection with the same spreading factor.

2. (Currently Amended) The invention of claim 1, wherein step (c1) ~~(b1)~~ further comprises the step of providing, by the one of the processors, a call-processing application to the connection.

3. (Currently Amended) The invention of claim 1, wherein step (c1) ~~(b1)~~ further comprises the step of measuring a utilization of each of the processors.

4. (Currently Amended) The invention of claim 3, wherein step (c1) ~~(b1)~~ allocates the one of the processors based on ~~either a call-context amount per CPU load-balancing algorithm or a CPU processor utilization load-balancing algorithm.~~

5. (Currently Amended) The invention of claim 1, wherein step (c2) ~~(b2)~~ further comprises determining the set of spreading codes with the same spreading factor.

6. (Currently Amended) The invention of claim 5, wherein, for step (c2) ~~(b2)~~, the set of spreading codes depends on the number of legs for soft-handover/soft-handoff of the connection.

7. (Original) The invention of claim 1, wherein, for step (a), the message of the connection is of a network operating in accordance with at least one of a General Packet Radio Service (GPRS) standard, Universal Mobile Telecommunications Systems (UMTS) network standard, and a Code Division Multiple Access (CDMA) 2000 standard.

8. (Original) The invention of claim 1, wherein the method is implemented in a processor of a radio network controller.

9. (Currently Amended) A network comprising a radio network controller (RNC), the RNC comprising:

means for monitoring for a message of a connection between a user element and a network;

means for determining whether the message is a call set-up message or an allocation message;

and

means for allocating:

(b1) if the message is a call set-up message, one of the processors to the connection in accordance with a load balancing algorithm, and

(b2) if the message is an allocation message, a set of spreading codes to the connection with the same spreading factor.

10. (Currently Amended) A computer-readable medium having stored thereon a plurality of instructions, the plurality of instructions including instructions which, when executed by a processor, cause the processor to implement a method for allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

(a) monitoring for a message of a connection between a user element and a network;

(b) determining whether the message is a call set-up message or an allocation message; and

(c) (b) allocating:

(c1) (b1) if the message is a call set-up message, one of the processors to the connection in accordance with a load-balancing algorithm, and

(c2) (b2) if the message is an allocation message, a set of spreading codes to the connection with the same spreading factor.

11. (New) The invention of claim 4, wherein the call-context amount per CPU load-balancing algorithm comprises:

determining an average number of calls per processor;

weighting the average number of calls per processor by a total call capacity of the processor; and

selecting the processor with the smallest weighted call average.

12. (New) A method of allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

monitoring for a message of a connection between a user element and a network; and

allocating, if the message is a call set-up message, one of the processors to the connection in accordance with a load-balancing algorithm based on a call-context amount per CPU load-balancing algorithm.

13. (New) The invention of claim 12, wherein the call-context amount per CPU load-balancing algorithm comprises:

determining an average number of calls per processor;

weighting the average number of calls per processor by a total call capacity of the processor; and

selecting the processor with the smallest weighted call average.

14. (New) A method of allocating processing capacity of processors in a radio network controller, the method comprising the steps of:

monitoring for an allocation message of a connection between a user element and a network; and

allocating a set of spreading codes to the connection with the same spreading factor;

wherein the set of spreading codes depends on the number of legs for soft-handover/soft-handoff of the connection.